

May-09-12 4:05:11 PM

**\*84335\***

Page 1

**Accept**

**\*N900040100\***

Setup Start \*NS1\*

Stop \*NS2\*

**Item Name:** Shim

**Start Date:** 09/05/2012      **Start Qty:** 10.00

**\*10\***

**Cust Item ID:****Required Date: 23/05/2012      Req'd Qty: 10.00**

**\*10\***

**Customer:**

**Reference:**

Approvals: Process Plan: MLJ

Date: 12/05/09 Tooling:

**Date:**

Run Start \*NR1\*

**QC:**

**Date:**

**SPC (Y/N):**

Date:

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
<b>Draw Nbr</b>	<b>Revision Nbr</b>								
D4314	A					2			
100		0.00							
<b>*100*</b>	FLOW WATER JET								
Waterjet	<b>Memo</b>	0.00							B12-5-15
FLOW CNC Waterjet	1-Cut as per Dwg D4314								
6061. (89)	Dwg Rev: <u>A</u>								
	Prog Rev: <u>A</u>								
	2-Deburr if necessary								
110	QC2- Inspect parts off machine FAI/FAIB	0.00							
<b>*110*</b>									
QC	<b>Memo</b>	0.00							B12-5-15
Quality Control									
120	QC8- Inspect parts - second check	0.00							
<b>*120*</b>									
QC	<b>Memo</b>	0.00							
Quality Control									
						counts			
						220			

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 84335

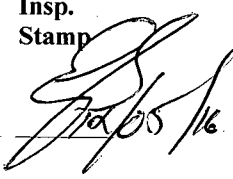
May-09-12 4:05:11 PM

**\*84335\***

Page 2

Item ID: D4314-3 Accept **\*N900040100\*** Setup Start **\*NS1\***  
Revision ID: Stop **\*NS2\***  
Item Name: Shim  
Start Date: 09/05/2012 Start Qty: 10.00 **\*10\*** Cust Item ID:  
Required Date: 23/05/2012 Req'd Qty: 10.00 **\*10\*** Customer:  
Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 <b>*130*</b> Small Fab Small Fab	Small Fab  Memo COUNTER SINK AS PER DWG	0.00  0.00				20X			
150 <b>*150*</b> QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00  0.00				counted (20)			
160 <b>*160*</b> HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1  Memo	0.00  0.00				(20)			NG 12.5.16

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 84335

May-09-12 4:05:11 PM

**\*84335\***

Page 3

Item ID: D4314-3 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Shim  
 Start Date: 09/05/2012 Start Qty: 10.00 **\*10\*** Cust Item ID:  
 Required Date: 23/05/2012 Req'd Qty: 10.00 **\*10\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170	QC3- Inspect Part Finish	0.00							
<b>*170*</b>									
QC	Memo	0.00				20	0	12-5-16	
Quality Control									
180	Identify as per dwg & Stock Location: <u>8107</u>	0.00							
<b>*180*</b>									
Packaging	Memo	0.00				20x		50	
Packaging								12-5-17	
190	QC21- Final Inspection - Work Order Release	0.00							
<b>*190*</b>									
QC	Memo	0.00						12/5/17	
Quality Control									

12-05-17

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

May-09-12 4:05:14 PM

Page 1

Work Order ID: 84335

\*84335\*

Parent Item: D4314-3

\*D4314-3\*

Parent Item Name: Shim

Start Date: 09/05/2012

Required Date: 23/05/2012

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP REV:A NEW ISSUE 11-02-02 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6S.188		Purchased	No			100	sf	23.2700	0.0194	0.204211			
*M6061T6S 188*										**			
6061-T6 .188 Sheet												B12-5-15	

Location

Loc Qty

Loc Code

MAT021

23.27

116604

23.27

116604

20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



## FIRST ARTICLE INSPECTION CHECKLIST

Measured by: B	Audited by: S	Preliminary Approval:
Date: 12-5-15	Date: 12/07/16	Date:

Rev	Date	Change	Revised by	Approved
A	11.04.28	New Issue	KJ	

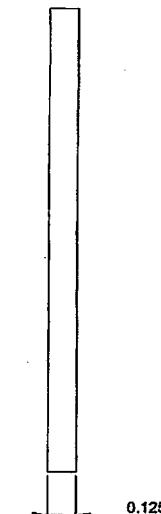
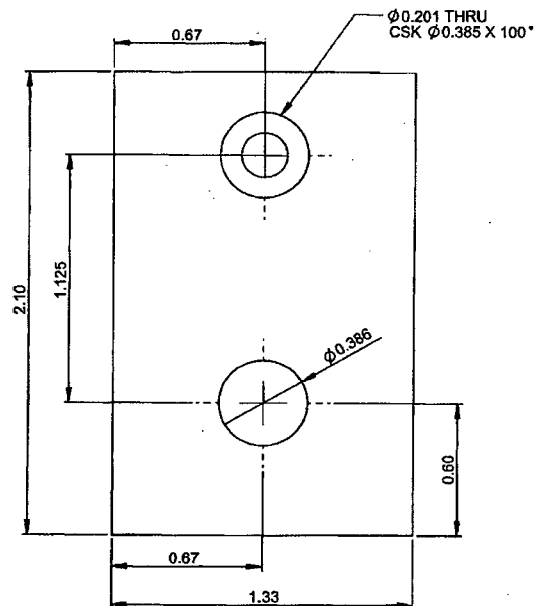
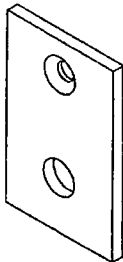
**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



**D4314-1 SHIM**

TOP COPY  
RETURN TO  
ENGINEERING  
CONTROLLED COPY  
FOR AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
84335 MLC  
12/05/09

RELEASED  
2011-02-13  
MB

**NOTES:**

- 1) MATERIAL: ALUMINUM 2024-T3 SHEET PER QQ-A-250/4 OR AMS-QQ-A-250/4  
OR AMS 4037 OR ASTM B209 (REF DART SPEC M2024T3S.125)  
OR  
ALUMINUM 6061-T6/T62 SHEET PER QQ-A-250/11 OR AMS-QQ-A-250/11  
AMS 4025 OR AMS 4027 OR ASTM B209 (REF DART SPEC M6061T6S.125)  
OR  
ALUMINUM 5052-H32 SHEET PER QQ-A-250/8 OR AMS-QQ-A-250/8  
AMS 4016 OR ASTM B209 (REF DART SPEC M5052H32S.125)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: PER QSI 044 6.1
- 7) WEIGHT: 0.01 lbs

A	NEW ISSUE	SC	11.01.13
REV.	DESCRIPTION	BY	DATE
DESIGN	SC	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	SC		
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D4314	SHEET 1 OF 2
APPROVED		TITLE	SCALE
DE APPR.		SHIM	NTS
DATE	11.01.13	<small>COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRINTED AND CONTROLLED AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS NOT TO BE REPRODUCED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

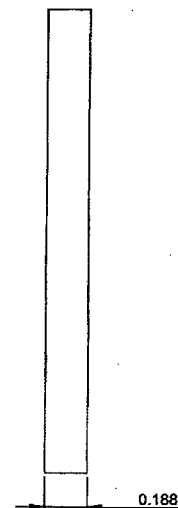
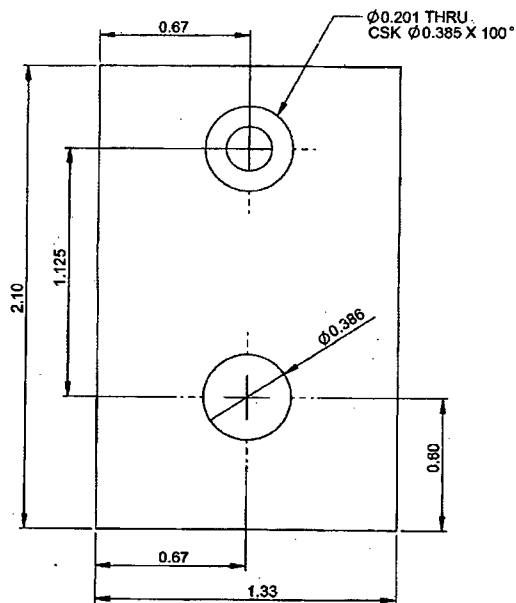
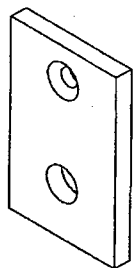
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



**D4314-3 SHIM**

**RELEASED**  
2011-02-01  
*WMP*

**NOTES:**

- 1) MATERIAL: ALUMINUM 2024-T3 SHEET PER QQ-A-250/4 OR AMS-QQ-A-250/4 OR AMS 4037 OR ASTM B209 (REF DART SPEC M2024T3S.188)  
OR  
ALUMINUM 6061-T6/T62 SHEET PER QQ-A-250/11 OR AMS-QQ-A-250/11 AMS 4025 OR AMS 4027 OR ASTM B209 (REF DART SPEC M6061T6S.188)  
OR  
ALUMINUM 5052-H32 SHEET PER QQ-A-250/8 OR AMS-QQ-A-250/8 AMS 4016 OR ASTM B209 (REF DART SPEC M5052H32S.188)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: PER QSI 044 6.1
- 7) WEIGHT: 0.05 lbs

DESIGN	SC	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	SC		
CHECKED	<i>JP</i>	DRAWING NO.	REV. A
MFG. APPR.	<i>JP</i>	<b>D4314</b>	SHEET 2 OF 2
APPROVED	<i>JP</i>	TITLE	SCALE
DE APPR.	<i>JP</i>	<b>SHIM</b>	NTS
DATE	11.01.13	<small>COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries